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FLOOD INSURANCE STUDY

CITY OF DALTON, GEORGIA

WHITFIELD COUNTY

FEBRUARY 16, 1990

Federal Emergency Management Agency

COMMUNITY NUMBER 130194

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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FLOOD INSURANCE STUDY

CITY OF DALTON,
WHITFIELD COUNTY,
GEORGIA

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study revises and supersedes a previous Flood Insurance Study for the City of Dalton (Reference 1). This information will be used by the community to update existing floodplain regulations as part of the regular phase of the National Flood Insurance Program. The information will also be used by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

This Flood Insurance Study was prepared by compiling existing hydrologic and hydraulic technical and scientific data prepared by the Federal Emergency Management Agency (FEMA) for purposes of the National Flood Insurance Program. The data were identified as applicable at the time of compilation of this Flood Insurance Study and should depict the general conditions of the flooding sources with relative accuracy. FEMA performed a cursory review and accepted the data as valid for purposes of this Flood Insurance Study and the National Flood Insurance Program. However, if better information is known to exist or has been developed since the date of this report, the information should be immediately forwarded to the Natural and Technological Hazards Division, FEMA, Atlanta, Georgia, for consideration for revision of this study.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for City Park Branch, Colony Creek, Crown Creek, McLellan Creek, Slaughter Pen Creek, and portions of Tar Creek were performed by the U.S. Army Corps of Engineers and were completed in April 1978 (Reference 1).

The hydrologic and hydraulic analyses for the remaining streams studied in detail were obtained from the Flood Insurance Study for Whitfield County, Georgia (Reference 2).

1.3 Coordination

On March 30, 1989, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the community and FEMA.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the City of Dalton, Whitfield County, Georgia. The area of study is shown on the Vicinity Map (Figure 1).

The areas studied by detailed methods were selected based on the extent and validity of available existing hydrologic and hydraulic data.

Flooding caused by overflow of Mill Creek, Tar Creek, Tar Creek Tributary, Drowning Bear Creek, City Park Branch, Colony Creek, Crown Creek, McLellan Creek, Slaughter Pen Creek, and Stacy Branch was studied in detail.

Approximate analyses were used to study all remaining areas having a potential flood hazard that did not have detailed scientific or technical data available.

2.2 Community Description

The City of Dalton is located in central Whitfield County in northwestern Georgia and is surrounded by the unincorporated areas of the county. Dalton is served by Interstate 75, U.S. Routes 41 and 76, State Routes 3, 52, and 71, the Norfolk Southern Railway, and the CSX railroad. Dalton is the county seat of Whitfield County. The 1980 population was reported to be 20,939 (Reference 3).

The major industries in the area are textiles, apparel, furniture, and paper. The region enjoys a moderate climate with monthly average temperatures ranging from 32 degrees Fahrenheit (^{o}F) in January to 90^{o}F in July. The average annual rainfall and snowfall are 49 inches and 3 inches, respectively (Reference 1).

2.3 Principal Flood Problems

Flood problems in Dalton are usually due to overflow of McLellan Creek, Crown Creek, and Mill Creek and its tributaries.

2.4 Flood Protection Measures

Five water-retarding structures, a municipal water storage structure, and 91,624 linear feet of channel improvements along Mill Creek provide some protection from flooding for the community (Reference 4). The degree of

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

APPROXIMATE SCALE

4 0 4 8 12 MILES

VICINITY MAP

flood protection those structures provide is uncertain. Therefore, the structures were not considered to protect the community from major flood events such as the 100-year flood.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that is expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

Discharges for Mill Creek, Drowning Bear Creek, Tar Creek, and Tar Creek Tributary were verified using U.S. Geological Survey (USGS) regional frequency techniques before being incorporated into this study. Additional discharge nodes, developed using the regional frequency techniques, were added to the existing discharges developed for Mill Creek in the previous study (Reference 1). The discharge-frequency relationship for the remaining streams were determined using the USGS regional regression equations (Reference 5). For areas where significant urbanization has occurred, these discharges were adjusted using USGS techniques (Reference 6). A detailed discussion of the methodology used in the hydrologic analyses is presented in "Hydrology Study for Unincorporated Whitfield County" (Reference 7).

Peak discharge-drainage area relationships for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
MILL CREEK					
at State Route 52	50.6	6,010	9,120	10,550	14,270
downstream of confluence of City Park Branch	44.5	5,210	9,020	9,330	12,730
downstream of confluence of Haig Mill Creek	38.4	4,720	7,290	8,500	11,630
at CSX railroad	23.0	3,170	5,020	5,910	8,210
DROWNING BEAR CREEK					
at Riverbend Road	14.5	3,180	4,760	5,490	7,400
at Antioch Road	11.5	3,070	4,520	5,170	6,900
upstream of confluence of Tar Creek	4.8	1,380	2,170	2,550	3,540
at U.S. Route 41	3.7	1,120	1,780	2,100	2,960
TAR CREEK					
downstream of confluence of Tar Creek Tributary	5.95	2,110	3,100	3,550	4,730
upstream of confluence of Tar Creek Tributary	4.61	1,730	2,560	2,950	3,970
TAR CREEK TRIBUTARY					
at mouth	1.29	760	1,150	1,320	1,810
COLONY CREEK					
at mouth	0.79	360	630	760	1,120
about 1,800 feet upstream of mouth	0.50	260	460	560	840
SLAUGHTER PEN CREEK					
at mouth	0.95	570	890	1,030	1,440
at Hair Street	0.47	400	610	710	990
CITY PARK BRANCH					
at mouth	0.84	660	970	1,110	1,490
about 1.0 mile upstream of mouth	0.43	430	640	740	1,000
CROWN CREEK					
at mouth	1.40	660	1,050	1,240	1,740

TABLE 1 - SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
MCLELLAN CREEK					
at mouth	3.04	930	1,510	1,790	2,550
at Tibbs Road	1.74	580	990	1,190	1,750
STACY BRANCH					
at mouth	1.56	710	1,110	1,320	1,850
at South Hamilton Road	0.67	400	650	770	1,100

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Cross sections for the streams studied in detail were developed from aerial photography (Reference 8). The below-water sections were obtained by field measurement. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Map.

Roughness coefficients (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and based on field observation of the streams and floodplain areas. The roughness values used for the main channel of Mill Creek varied from 0.030 to 0.045, with 0.04 being used for the majority of reaches. Channel roughness coefficients for other streams were slightly higher (0.035-0.045), primarily because of increased stream debris and rocks observed during field reconnaissance. Roughness values for overbank areas on all streams ranged from 0.06 where the floodplain was grassed pastureland and relatively clear of obstructions to 0.15 where heavy forest and underbrush were present. Water-surface elevations of floods of the selected recurrence intervals were computed using the HEC-2 step-backwater computer program (Reference 9).

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 50- and 100-year flood elevations are close together, due to limitations of the profile scale, only the 100-year profile has been shown.

The hydraulic analyses for this study are based on the effects of unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in this study are shown on the map and described in the exhibit labeled Elevation Reference Marks.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study provides 100-year flood elevations and delineations of the 100- and 500-year floodplain boundaries and 100-year floodway to assist communities in developing floodplain management measures.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:4800 with a contour interval of 4 feet (Reference 10).

The 100- and 500-year floodplain boundaries are shown on the Flood Insurance Rate Map. On this map, the 100-year floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AH, AO, A99, V, and VE) and the 500-year floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 100- and 500-year floodplain boundaries are close together, only the 100-year floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 100-year floodplain boundary is shown on the Flood Insurance Rate Map.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 100-year floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot,

provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways for this study were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections and are shown in Table 2, Floodway Data. The computed floodways are shown on the Flood Insurance Rate Map. In cases where the floodway and 100-year floodplain boundaries are either close together or collinear, only the floodway boundary is shown. Portions of the floodway for Mill Creek, Drowning Bear Creek, Tar Creek, and McLellan Creek lie outside the corporate limits.

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than a 1.0-foot increase in the base flood elevations at any point within the community.

The area between the floodway and the 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 1.0 foot at any point within the community. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 2.

FIGURE 2 - Floodway Schematic

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
DROWNING BEAR CREEK								
A	25,335	250[2]	726	3.5	693.2	693.2	693.7	0.5
B	26,078	370	796	3.2	698.3	698.3	698.5	0.2
C	26,870	100	755	3.4	703.1	703.1	703.2	0.1
D	27,830	49	387	6.6	705.6	705.6	705.8	0.2
TAR CREEK								
A	2270	421	3930	1.2	688.1	688.1	689.1	1.0
B	6666	80	525	4.0	710.1	710.1	711.1	1.0
C	7870	324[2]	1951	1.1	711.3	711.3	712.3	1.0
D	13,625	300	606	3.4	733.2	733.2	733.5	0.3
E	16,688	50	204	6.7	752.5	752.5	753.4	0.9
F	17,585	33	124	11.0	760.7	760.7	760.7	0.0
G	18,002	37	186	7.3	765.5	765.5	765.5	0.0
TAR CREEK TRIBUTARY								
A	2850	135	433	1.6	700.7	700.7	701.7	1.0
B	4385	113	403	1.7	710.0	710.0	710.7	0.7
C	5658	27	161	3.0	714.9	714.9	715.8	0.9
D	6867	15	84	5.9	725.2	725.2	726.2	1.0

[1]FEET ABOVE MOUTH
[2]THIS WIDTH EXTENDS BEYOND CORPORATE LIMITS

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

FLOODWAY DATA

DROWNING BEAR CREEK--TAR CREEK--TAR CREEK TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
COLONY CREEK								
A	780	25	128	5.9	687.8	681.8[3]	682.8	1.0
B	1800	100	272	2.8	687.8	686.3[3]	686.9	0.6
McLELLAN CREEK								
A	531	157	658	2.7	720.4	711.1[3]	712.1	1.0
B	886	113	1326	1.3	721.9	721.9	722.2	0.3
C	1731	456	3855	0.5	722.2	722.2	722.5	0.3
D	3456	340[2]	350	4.3	727.2	727.2	727.2	0.0
E	4436	42	204	7.3	737.6	737.6	737.6	0.0
F	7764	47	209	5.7	756.3	756.3	756.7	0.4
G	8451	168	532	2.2	759.6	759.6	760.2	0.6
H	8820	78	207	5.7	761.1	761.1	761.6	0.5
I	9709	56	133	6.6	766.9	766.9	766.9	0.0
J	9899	58	262	3.4	769.7	769.7	770.6	0.9
K	10,129	212	1177	0.7	774.8	774.8	775.6	0.8
L	10,404	65	166	3.2	775.2	775.2	776.1	0.9
M	11,129	22	58	9.3	783.7	783.7	783.7	0.0

[1] FEET ABOVE MOUTH
[2] THIS WIDTH EXTENDS BEYOND CORPORATE LIMITS
[3] ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM MILL CREEK

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

FLOODWAY DATA

COLONY CREEK—MCLELLAN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
SLAUGHTER PEN CREEK								
A	776	24	172	6.0	689.4	688.4[2]	688.8	0.4
B	1800	182	678	1.5	690.6	690.6	691.6	1.0
C	3276	38	160	5.3	693.9	693.9	694.4	0.5
D	3963	52	277	3.1	697.7	697.7	698.0	0.3
E	4385	34	153	4.6	698.5	698.5	698.8	0.3
F	4800	71	318	2.2	703.4	703.4	703.4	0.0
G	5069	133	219	3.2	703.8	703.8	704.0	0.2
H	5471	203	1125	0.6	707.6	707.6	707.9	0.3
I	6339	156	216	3.3	712.2	712.2	712.3	0.1
J	6787	75	494	1.4	721.3	721.3	722.1	0.8
K	7342	36	129	2.5	725.3	725.3	726.3	1.0
STACY BRANCH								
A	3699	50	229	5.8	687.9	687.9	688.9	1.0
B	4541	100	708	1.9	691.7	691.7	692.4	0.7
C	5969	57	204	6.5	694.7	694.7	695.5	0.8
D	6494	47	163	4.7	698.5	698.5	698.7	0.2
E	7495	41	204	3.8	702.7	702.7	703.7	1.0
CITY PARK BRANCH								
A	1057	68	262	4.2	695.2	695.1[2]	695.8	0.7
B	2432	41	170	6.5	700.3	700.3	700.6	0.3
C	3857	34	114	6.5	704.6	704.6	705.3	0.7
D	5255	27	114	6.5	716.2	716.2	716.2	0.0

[1]FEET ABOVE MOUTH
[2]ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM MILL CREEK

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

FLOODWAY DATA

SLAUGHTER PEN CREEK—STACY BRANCH—CITY PARK BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD[1])	INCREASE (FEET)
MILL CREEK								
A	12,345	726[2]	6264	1.7	687.7	687.7	688.1	0.4
B	16,940	568[3]	4198	2.5	691.3	691.3	692.1	0.8
C	22,780	762[3]	3845	2.4	694.6	694.6	695.5	0.9
D	25,280	460	3840	2.4	696.6	696.6	697.5	0.9
E	26,630	160[2]	1484	6.3	702.1	702.1	702.1	0.0
F	26,950	283[2]	2773	3.4	703.5	703.5	703.8	0.3
G	28,610	327	2019	4.6	704.3	704.3	704.7	0.4
H	31,525	1735	9247	1.0	708.8	708.8	709.0	0.2
I	33,130	571	3870	2.4	709.1	709.1	709.3	0.2
J	40,550	246	1911	4.4	718.5	718.5	718.7	0.2
K	42,250	711[2]	6174	1.4	720.1	720.1	720.4	0.3
L	43,450	249	2356	3.6	722.7	722.7	722.7	0.0
CROWN CREEK								
A	116	130	616	2.0	708.7	702.4[4]	703.0	0.6
B	828	120	261	4.7	708.7	704.8[4]	705.0	0.2
C	1692	116	260	4.8	708.9	708.9	709.1	0.2
D	1861	25	181	6.8	711.9	711.9	712.7	0.8
E	1986	48	280	4.4	714.7	714.7	715.4	0.7
F	2034	51	303	4.1	714.9	714.9	715.7	0.8
G	2348	139	232	5.3	717.2	717.2	717.8	0.6
H	2598	193	243	5.1	721.4	721.4	721.4	0.0
I	2993	120	1024	1.2	731.7	731.7	731.7	0.0
J	3118	149	857	1.4	731.7	731.7	731.7	0.0

[1]FEET ABOVE MOUTH
[2]THIS WIDTH EXTENDS BEYOND CORPORATE LIMITS
[3]THIS WIDTH IS BEYOND CORPORATE LIMITS
[4]ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM MILL CREEK

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

FLOODWAY DATA

MILL CREEK—CROWN CREEK

Zone A

Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 100-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 100-year floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols the 100- and 500-year floodplains, the floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

7.0 OTHER STUDIES

The Flood Insurance Study in progress for Whitfield County, Georgia (Reference 2) is in agreement with this study.

This Flood Insurance Study supersedes the previously published Flood Insurance Study for the City of Dalton (Reference 1).

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, FEMA, 1371 Peachtree Street, NE., Suite 736, Atlanta, Georgia 30309.

Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To assure that any user is aware of all revisions, it is advisable to contact the map repository of flood hazard data located in the community.

9.0 REFERENCES AND BIBLIOGRAPHY

1. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, City of Dalton, Whitfield County, Georgia, December 1979.

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4. U.S. Department of Agriculture, Soil Conservation Service, Watershed Work Plan for Mill Creek Watershed, Walker and Whitfield Counties, Georgia, Coosa River Soil and Water Conservation District, March 1958.

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6. ————, Geological Survey, Water Supply Paper 2207, Flood Characteristics of Urban Watersheds in the United States, Techniques for Estimating Magnitude and Frequency of Urban Floods, V.B. Sauer, W.O. Thomas, Jr., V.A. Stricker, and K.V. Wilson, 1983.

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9. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Computer Program 723-X6-L202A, Davis, California, April 1984.

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ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
1	0005	689.64	chiseled square on downstream concrete guardrail at east end of Underwood Street bridge over Mill Creek
2	0005	690.27	bolt between words "Chattanooga" and "Tennessee," in top of fire plug located about 500 feet south of Underwood Street at northeast side of intersection of Beachland Circle and Beachland Place
3	0005	705.76	chiseled square on west end of culvert headwall under Grade Drive, 70 feet south of East Waugh Street centerline, 30 feet west of Grade Street centerline
4	0005	721.55	nail in telephone pole located 35 feet southwest of centerline of intersection of Grimes Street and Foster Street
5	0005	718.88	nail in power pole located 22 feet north of Nelson Street and 26 feet east of Grimes Street
6	0005	715.32	nail in power pole located 16 feet south along Grimes Street from intersection of Grimes Street and Dozier Street, 18 feet west of Grimes Street centerline
7	0005	722.26	chiseled square in curb located on south side of intersection of New Morris Street and Grimes Street, 2.5 feet north of stop sign
8	0005	742.53	bolt between words "Chattanooga" and "Tennessee," in top of fire plug located on south side of intersection of Murray Avenue and Grimes Street
9	0005	710.40	nail in power pole located 36 feet southwest of intersection of Civic Drive and Morningside Drive, 10 feet northeast of Dalton Baptist Temple Building

ELEVATION REFERENCE MARKS (Continued)

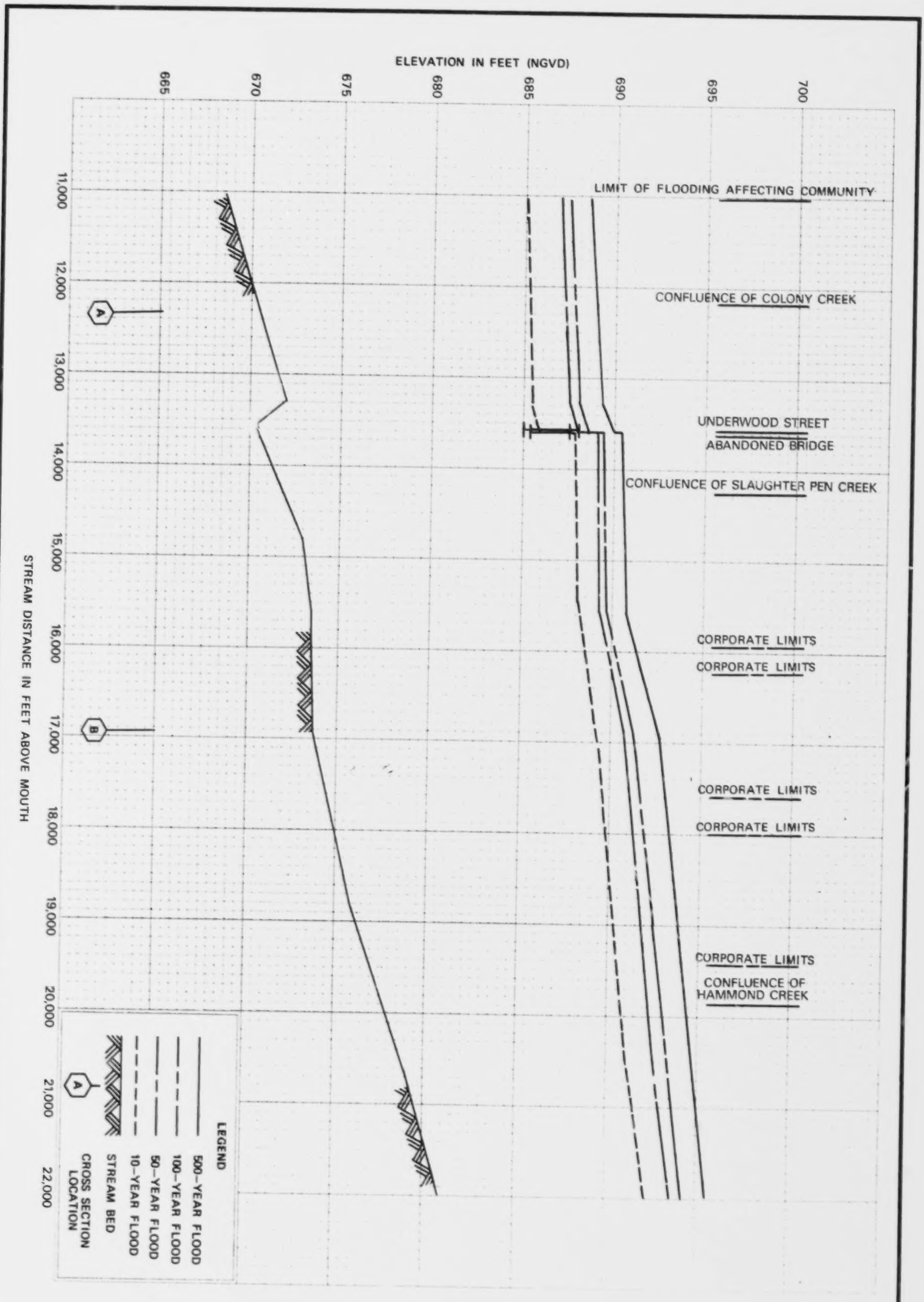
REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
10	0005	725.5	chiseled square in top concrete curb by drop inlet located 36 feet northwest of intersection of Mitchell Street and Civic Drive, 9 feet southwest from Mitchell Street and Civic Drive signs
11	0005	703.98	a chiseled square on downstream side of concrete abutment at north end of State Route 71 bridge over Mill Creek
12	0005	709.30	a chiseled square on north end and upstream of Chattanooga Avenue bridge over Mill Creek, 500 feet northeast of north end of Fixler Brothers Bager Mills
13	0005	714.22	bolt between words "Chattanooga" and "Tennessee," in top of fire plug located at intersection of triangle-shaped island between Chattanooga Avenue and Judson Street, 50 feet south of railroad spur, 200 feet east of Sonoco Products Company building
14	0005	733.28	nail in telegraph line pole located 600 feet north along CSX railroad from intersection of CSX railroad and Tyler Street
15	0005	754.26	nail in power pole located 20 feet east of tee intersection of Chattanooga Avenue and Matilda Street
16	0005	731.42	chiseled square in top of concrete curb located 23 feet west along West Tyler Street from intersection of West Tyler Street and Jones Street, 20 feet south of West Tyler Street, 2 feet north of power pole
17	0005	746.53	chiseled square in curb at southwest end of southbound lane for I-75 bridge over Chattanooga Road

ELEVATION REFERENCE MARKS (Continued)

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
18	0005	732.85	chiseled square on top end of eastern curb located 500 feet north along Shugart Road from intersection of Shadow Lane and Shugart Road
19	0005	745.70	chiseled mark in top of headwall of culvert for McLellan Creek under Tibbs Road at left bank and upstream side
20	0005	771.26	bolt spike in power pole located at north side of tee intersection of Tibbs Road and Tiffany lane, 25 feet north of Tibbs Road centerline
21	0005	793.42	bolt between words "Chattanooga" and "Tennessee," in top of fire plug located at intersection of Tibbs Road and Wood Valley Drive
22	0005	815.17	chiseled square on southwest corner of drop inlet located at northwest side of intersection of Tibbs Road and Ella Lane
23	0005	796.48	bolt between words "Chattanooga" and "Tennessee," in top of fire plug located at northeast side of intersection of Tibbs Road and Walnut Avenue, 200 feet east of Dalton Federal Savings
24	0005	745.59	chiseled square on end of headwall located at right bank and upstream of culvert for Tar Creek under Lakemont Drive, 200 feet east of intersection of Lakemont Drive and West Lake Shore Drive, across street from house No. 907 Lakemont Drive
25	0005	707.75	chiseled square on northeast corner of concrete headwall of culvert for Tar Creek under Dee Street

ELEVATION REFERENCE MARKS (Continued)

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DISCRIPTION OF LOCATION
26	0005	742.26	head of bolt between the words "Chattanooga" and "Tennessee," at top of fire plug located at intersection of East Morris Street and 4th Avenue, 400 feet south of Morris Street School
27	0005	729.92	nail in power pole located in northwest corner of intersection of 4th Avenue and Red Wine Street
28	0005	763.67	nail in power pole located on west bank of Tar Creek Tributary about 140 feet north of East Walnut Avenue bridge over Tar Creek Tributary
29	0005	683.87	chiseled square in top of concrete headwall on Underwood Street bridge over Colony Creek, 77 feet from southeast corner of house No. 2513, about 22 feet north of centerline of Underwood Street
30	0010	696.05	a chiseled square on concrete bridge slab located at the northeast corner of Abutment Road bridge over Drowning Bear Creek
31	0010	719.84	nail in power pole located 0.48 mile west along Industrial Boulevard from intersection of Industrial Boulevard and South Hamilton Road, 45 feet north of Industrial Boulevard centerline
32	0010	700.53	chiseled square on southeast corner of culvert for Stacy Branch under Lakeland Road



01P	FEDERAL EMERGENCY MANAGEMENT AGENCY **CITY OF DALTON, GA** (WHITFIELD CO.)	**FLOOD PROFILES** **MILL CREEK**

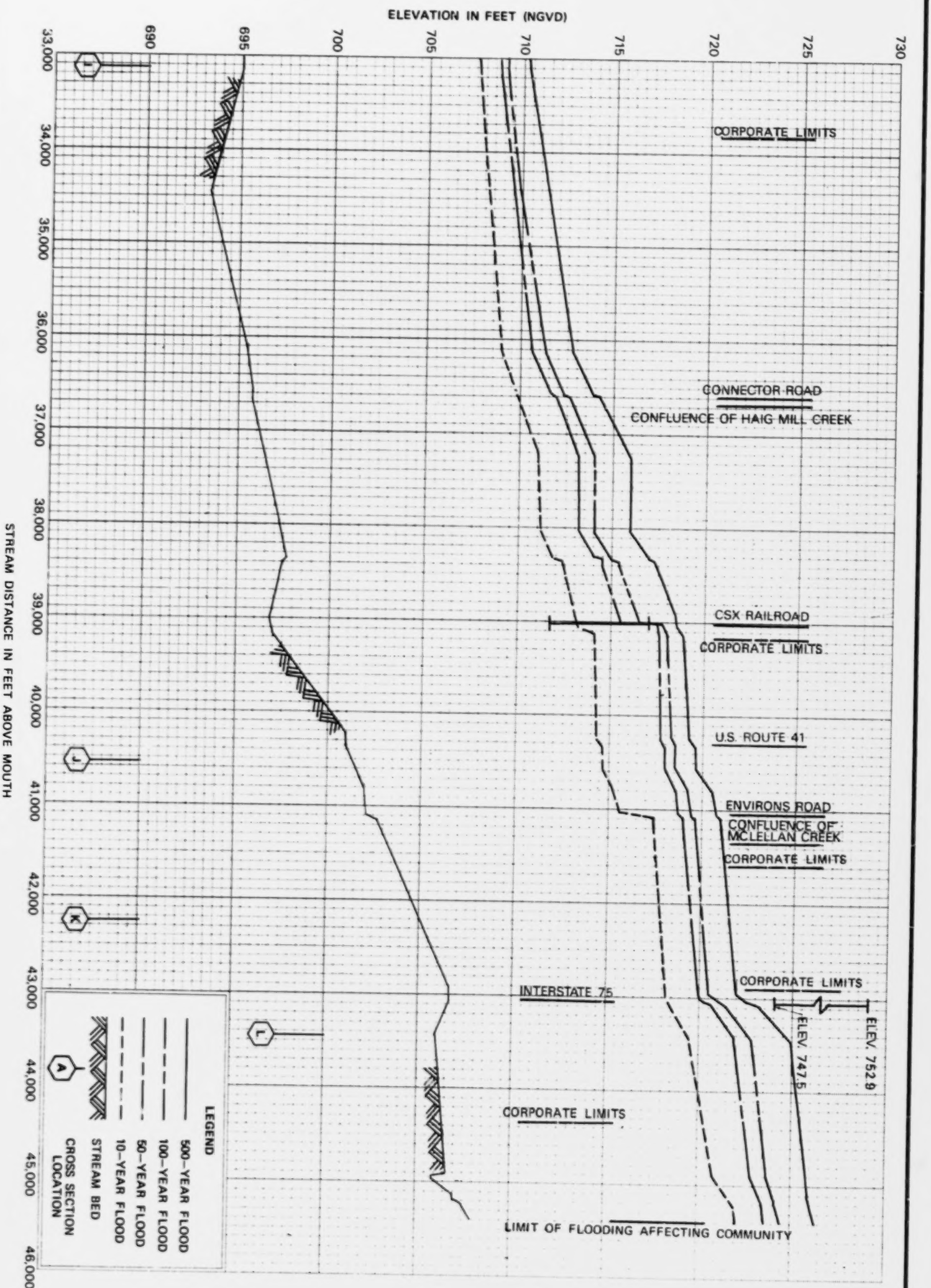
FLOOD PROFILES

MILL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

02P



03P

FEDERAL EMERGENCY MANAGEMENT AGENCY

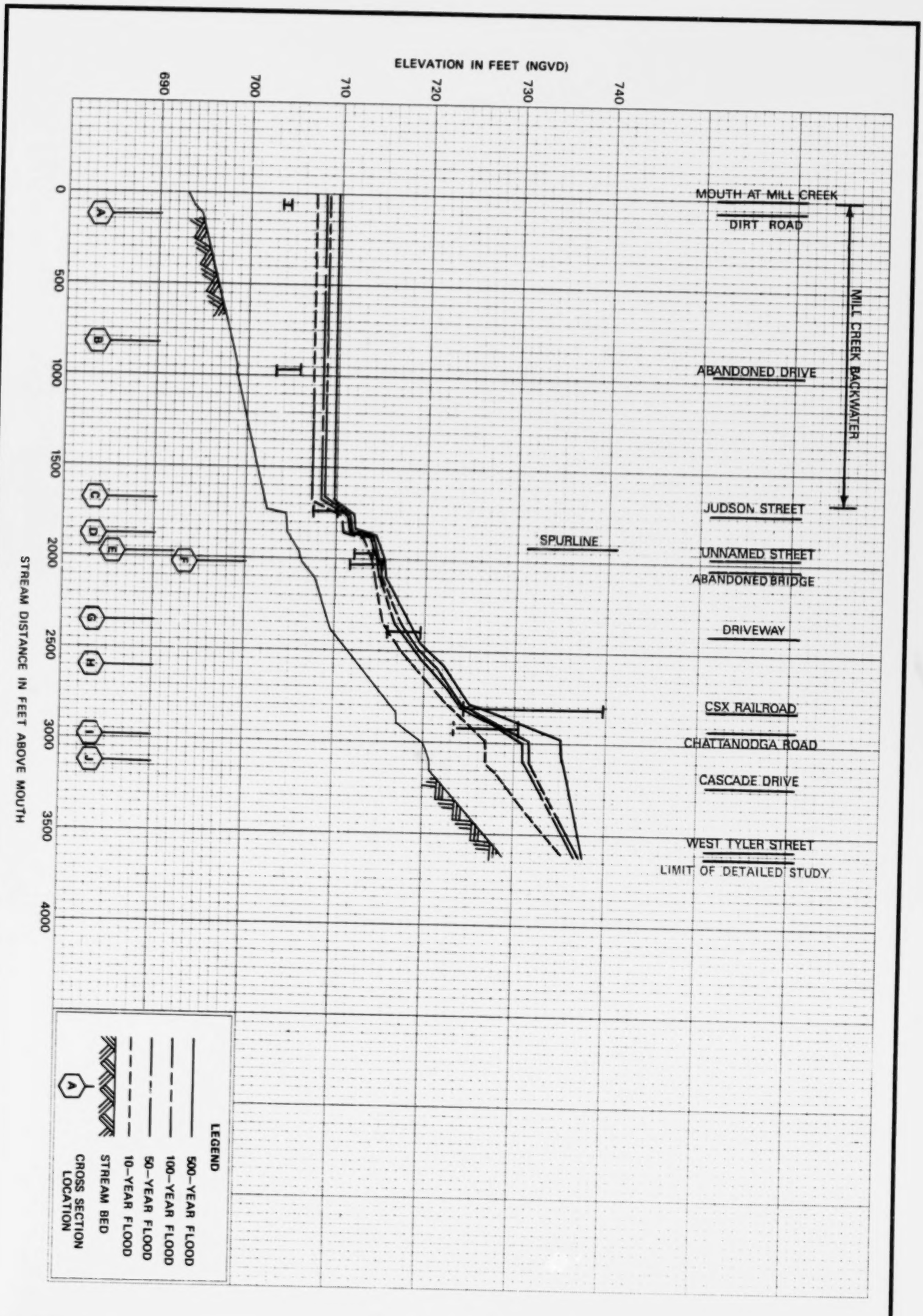
CITY OF DALTON, GA

(WHITFIELD CO.)

FLOOD PROFILES

MILL CREEK

21



04P

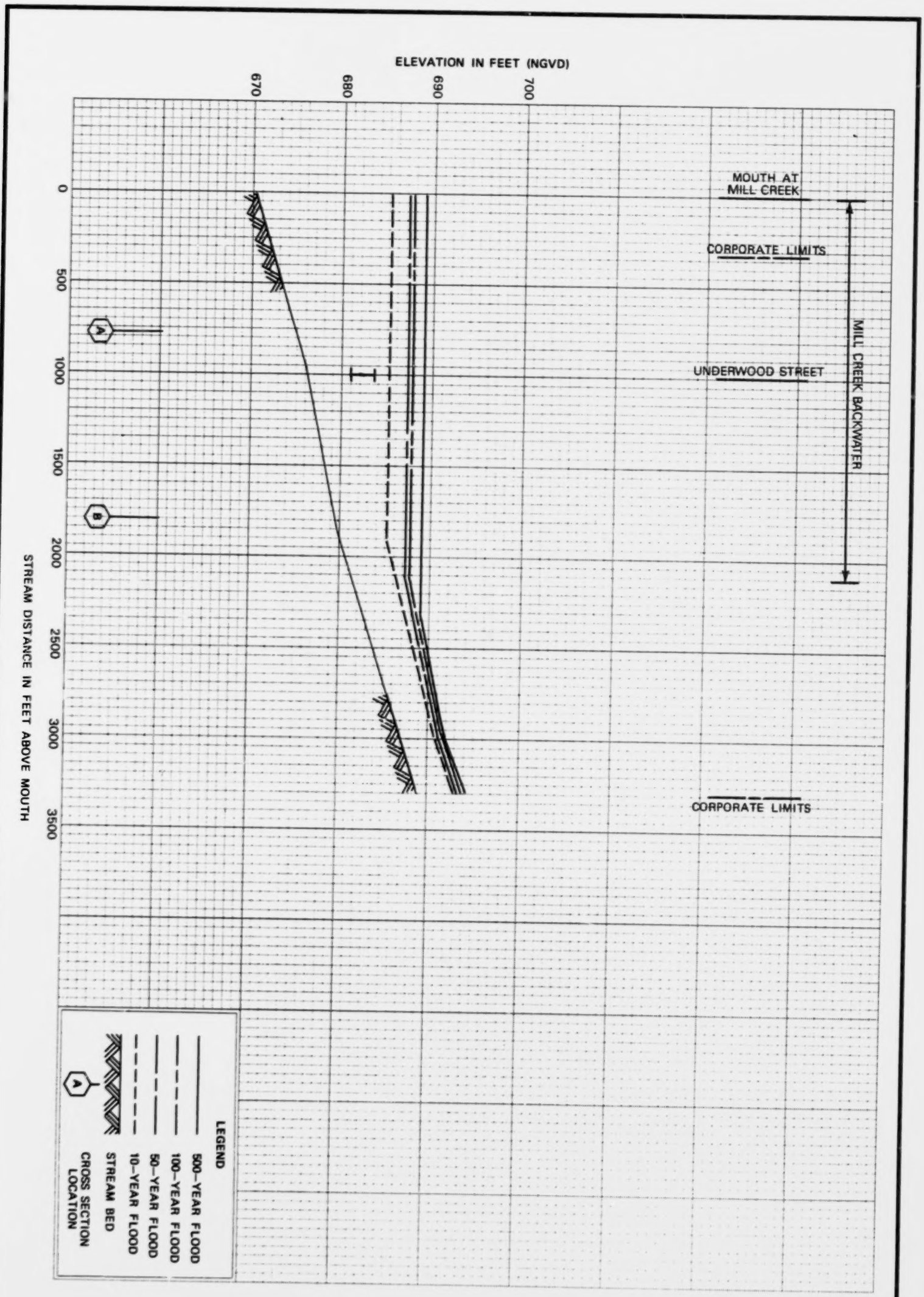
FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA

(WHITFIELD CO.)

FLOOD PROFILES

CROWN CREEK



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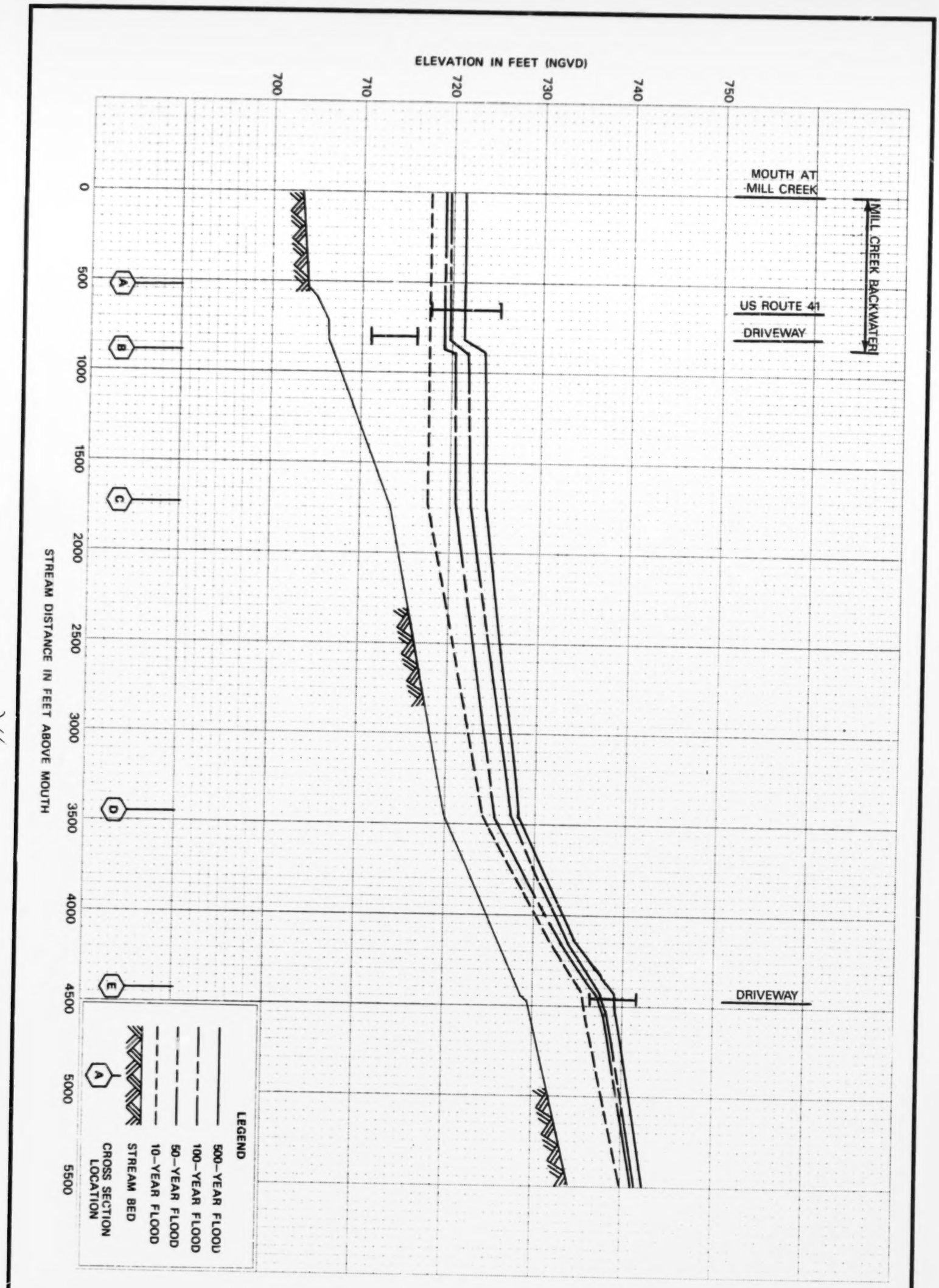

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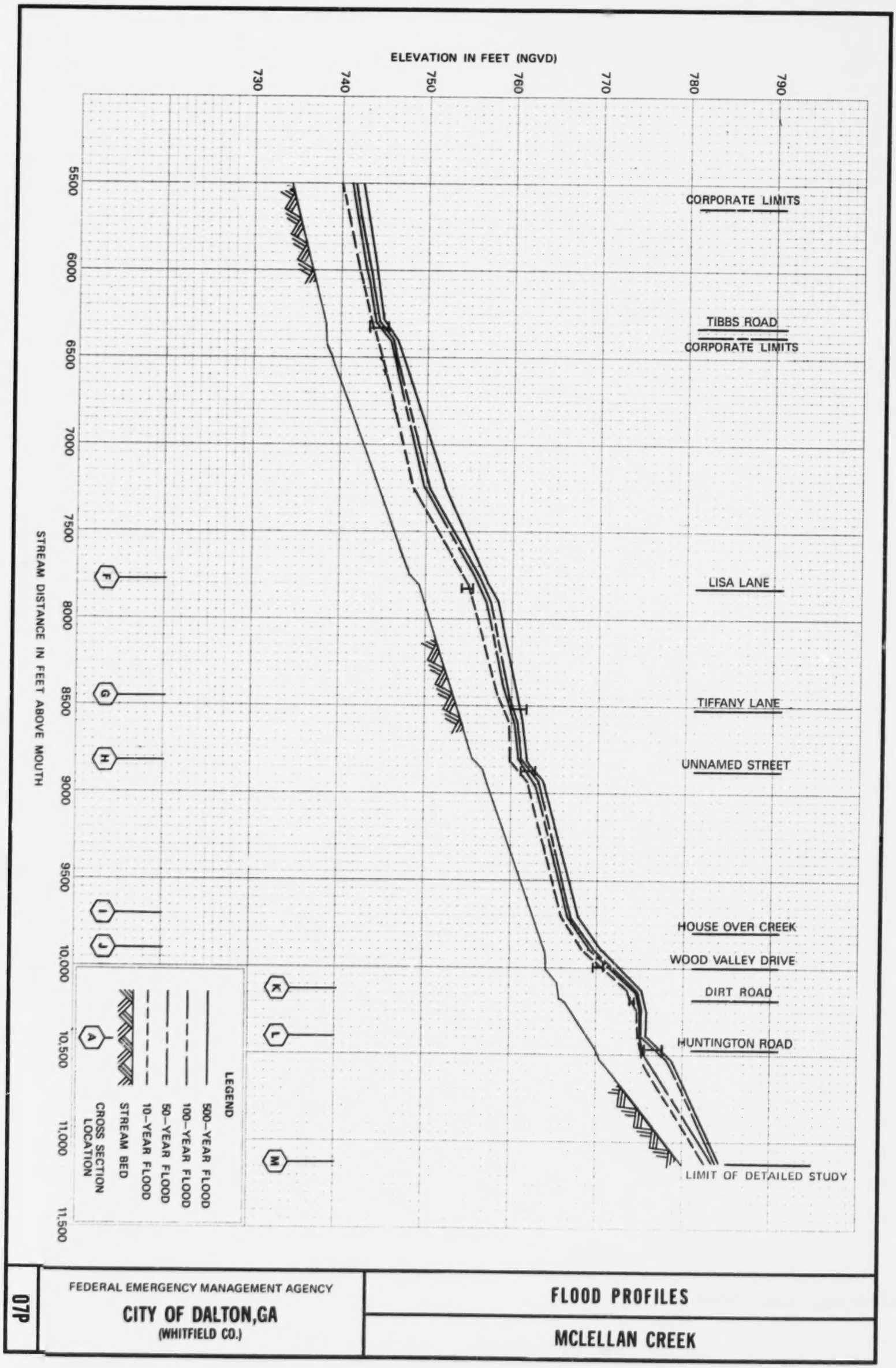

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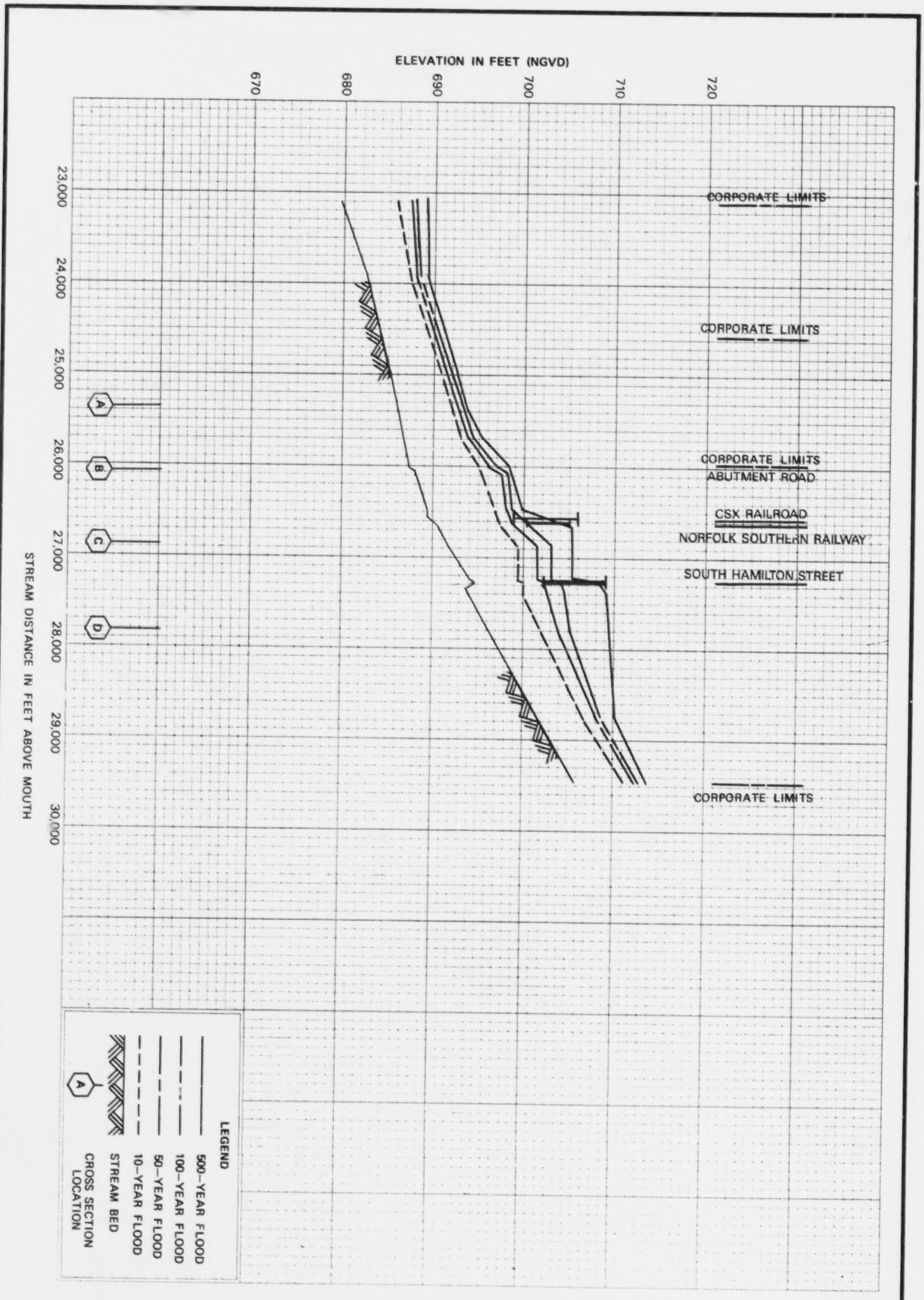
07P

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

FLOOD PROFILES

MCLELLAN CREEK



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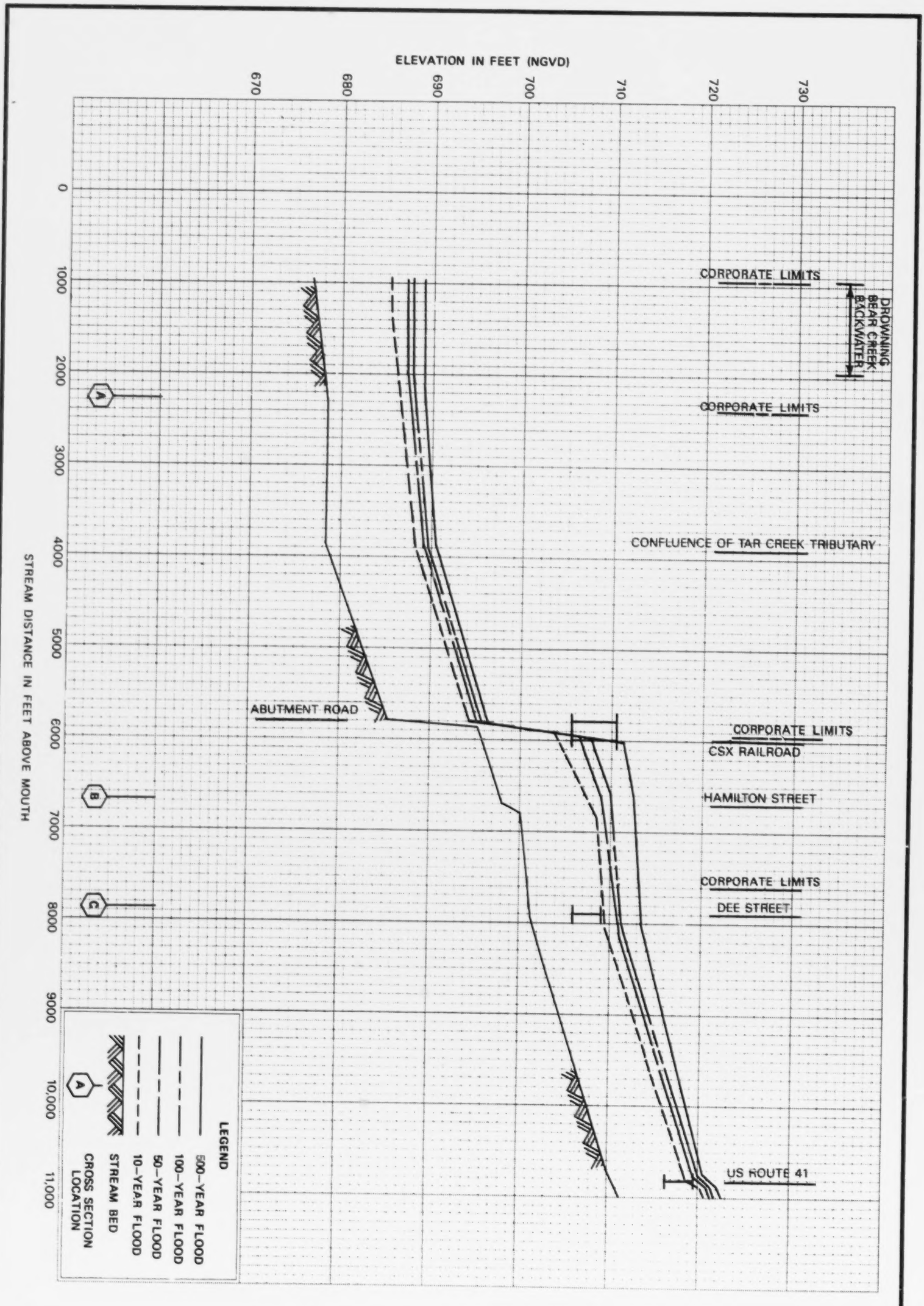

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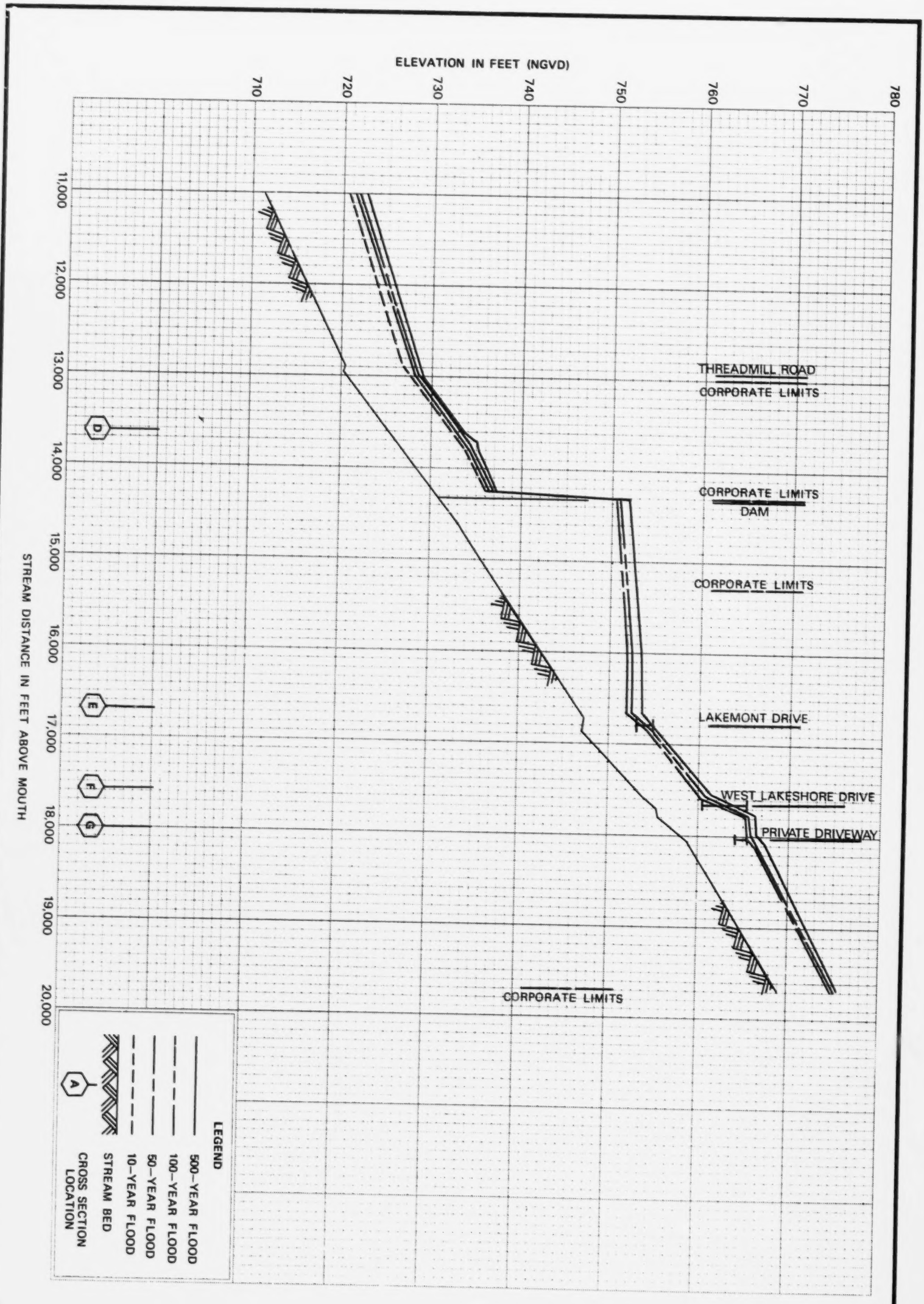

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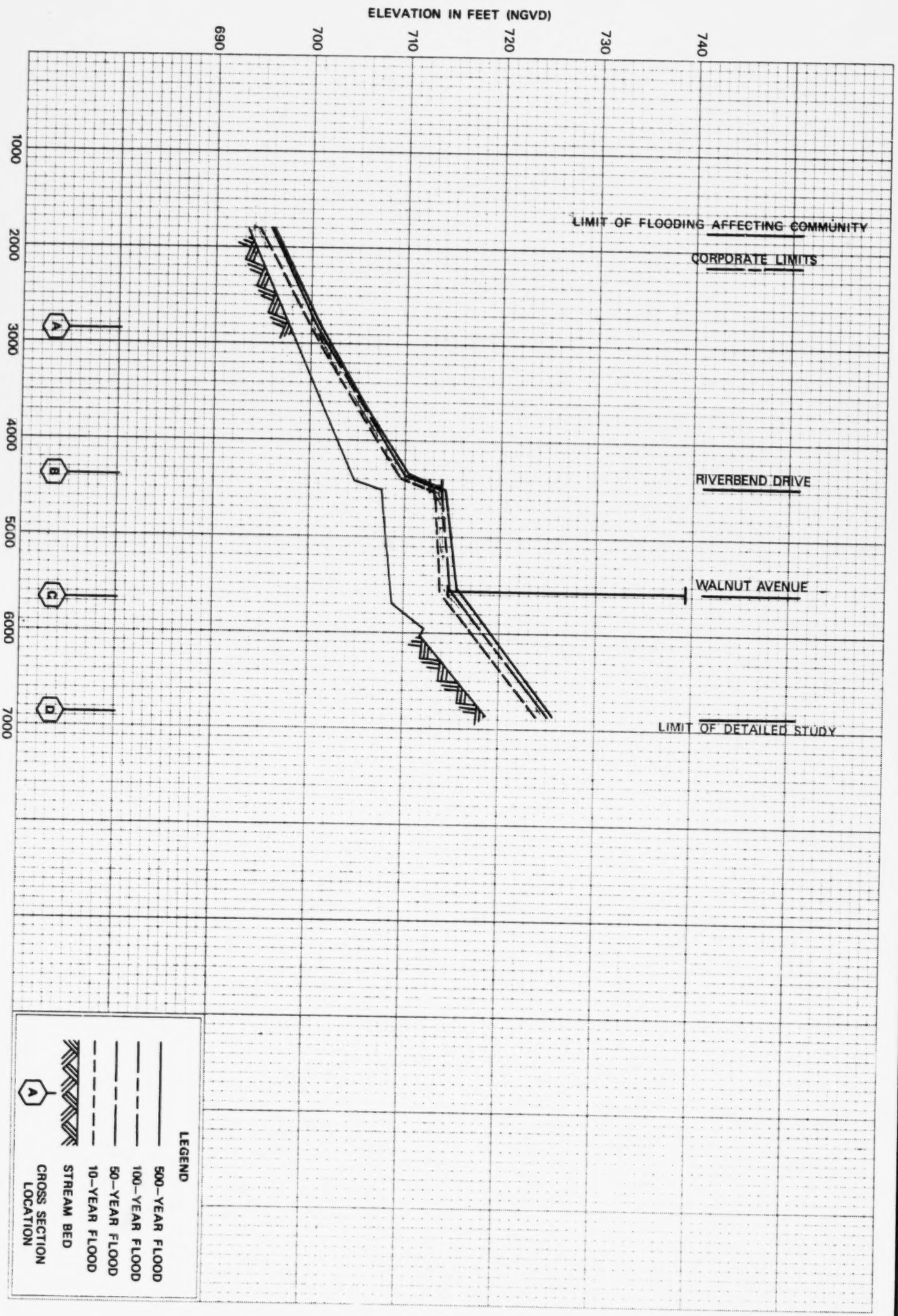
FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA
(WHITFIELD CO.)

FLOOD PROFILES

TAR CREEK



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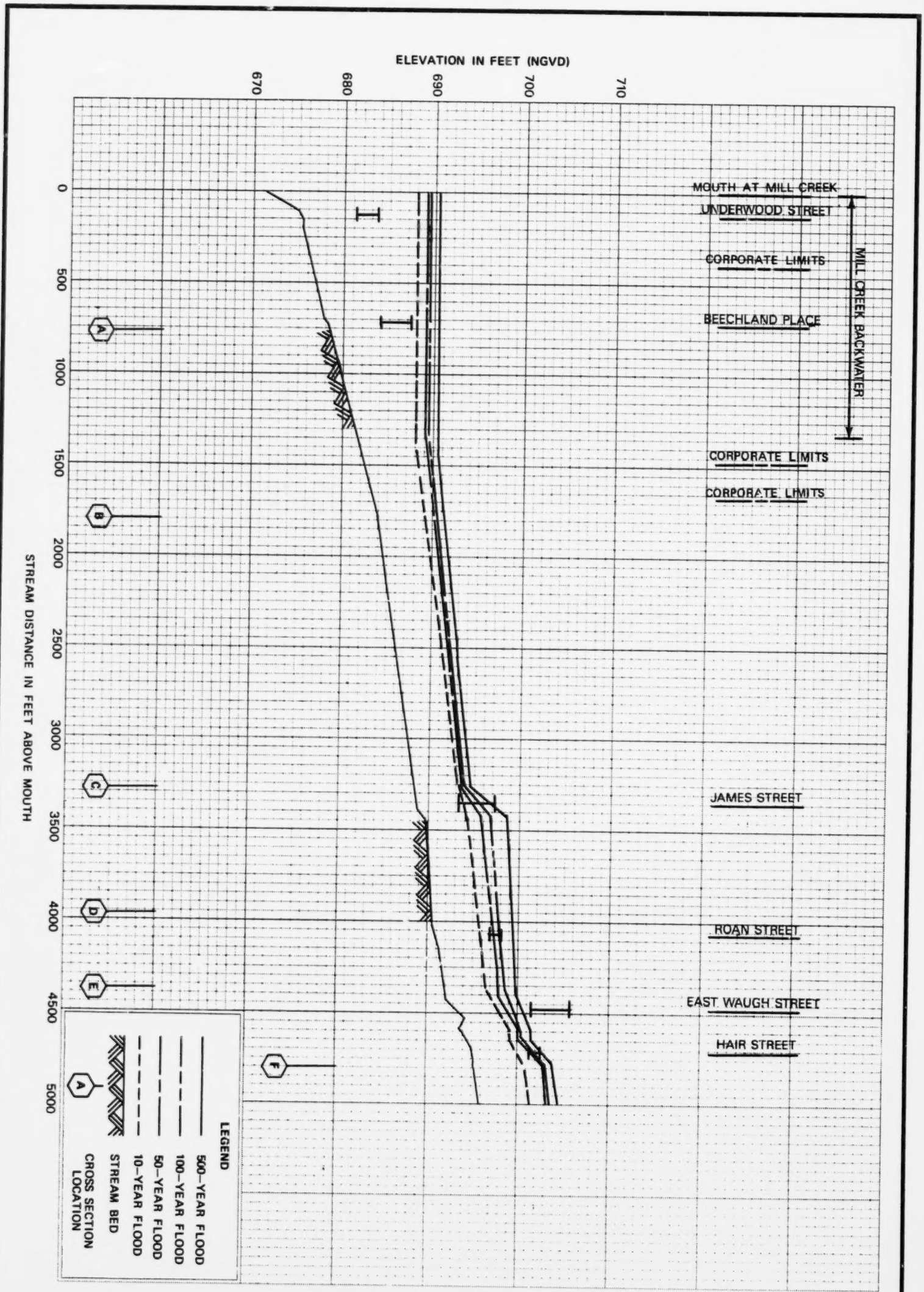

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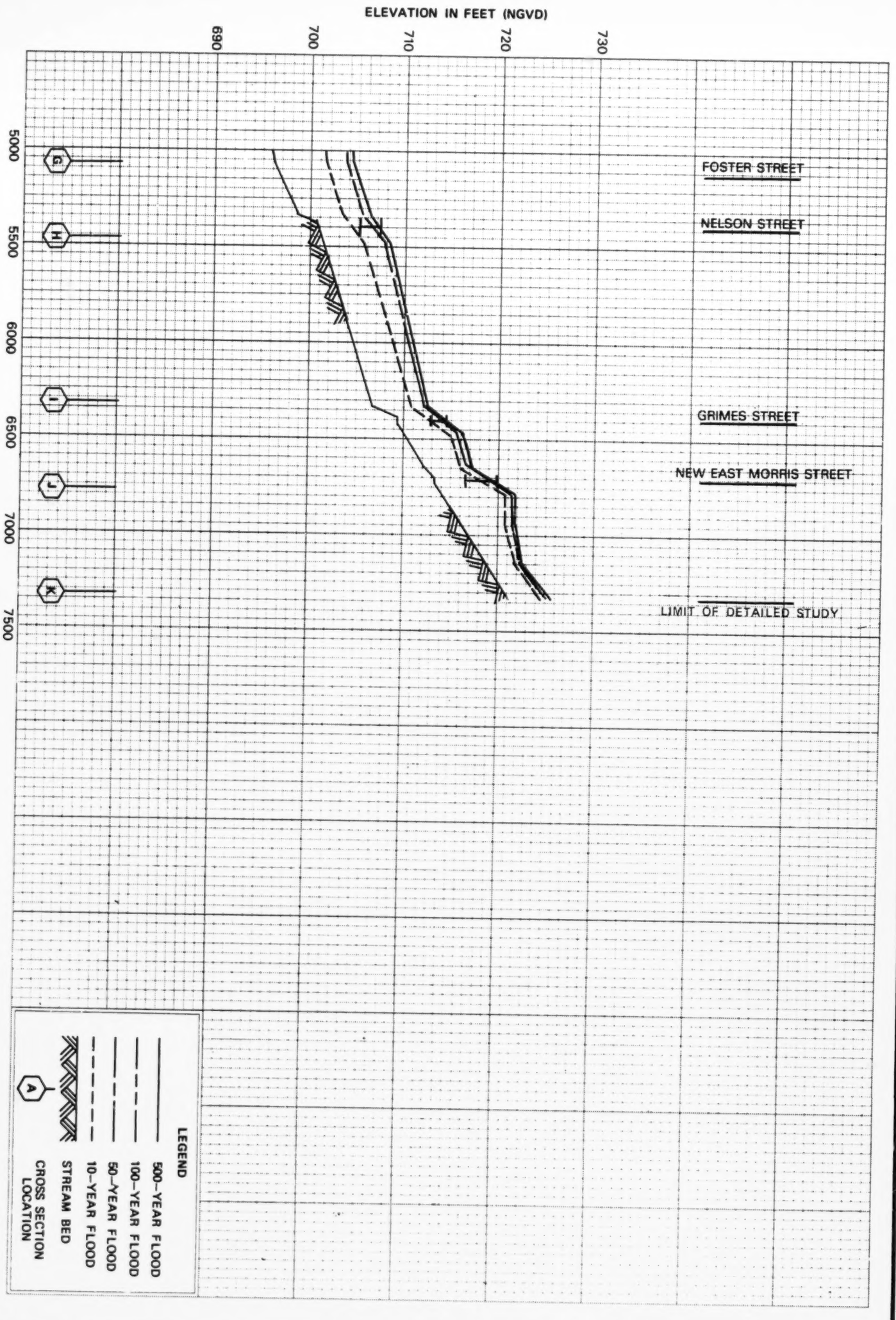

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13P

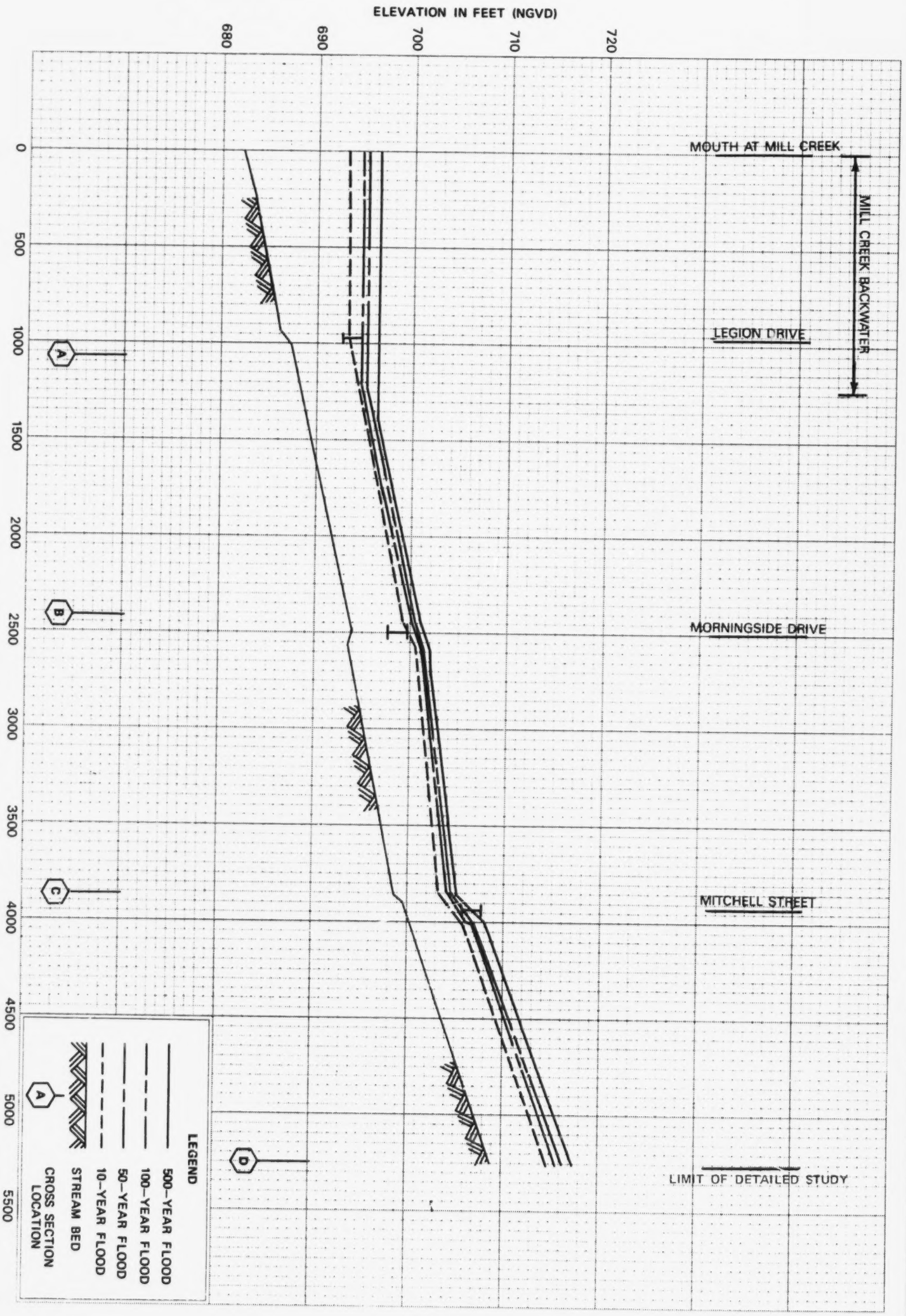
FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF DALTON, GA

(WHITFIELD CO.)

FLOOD PROFILES

SLAUGHTER PEN CREEK



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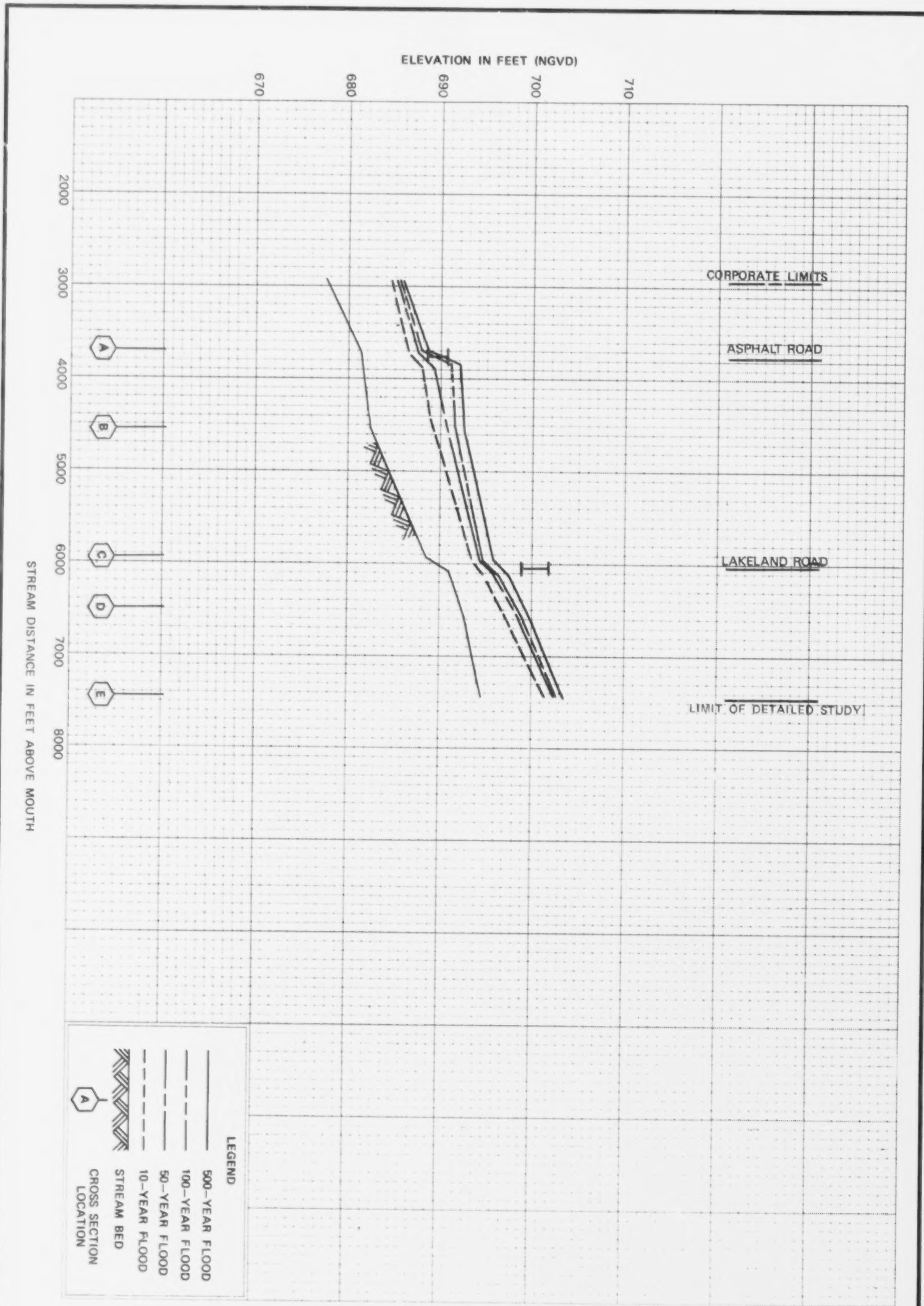

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